1600

CRF Errors Corrected by the STIC Systems Branch

CRF Processing Date: 5/9/2003

Serial Number: 09/634,287C

Edited by:

Verified by: (STIC staff)

ENTERED

RECEIVED

MAY 15 2003

TECH CENTER 1600/2900

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☑ Deleted extra, invalid, headings used by an applicant, specifically: Sequence 3 - deleted alphabetical headings
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____.
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

1600

RAW SEQUENCE LISTING DATE: 05/09/2003
PATENT APPLICATION: US/09/634,287C TIME: 09:47:36

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05092003\I634287C.raw

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 5 <120> TITLE OF INVENTION: AGGRECAN DEGRADING METALLO PROTEASES
 7 <130> FILE REFERENCE: DM6090 DIV
 9 <140> CURRENT APPLICATION NUMBER: 09/634,287C
10 <141> CURRENT FILING DATE: 2000-08-09
12 <150> PRIOR APPLICATION NUMBER: 60/053,850
13 <151> PRIOR FILING DATE: 1997-07-25
15 <150> PRIOR APPLICATION NUMBER: 60/055,836
16 <151> PRIOR FILING DATE: 1997-08-15
18 <150> PRIOR APPLICATION NUMBER: 60/062,169
19 <151> PRIOR FILING DATE: 1997-10-16
21 <160> NUMBER OF SEQ ID NOS: 48
23 <170> SOFTWARE: PatentIn version 3.1
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35 gccagagaag ctgcagaaga cacaggcagg gagagacaaa gatccaggaa aggagggctc    180
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39 tttctccatt tcctttaacg gtcctcagcc cttctgaaaa ctttgcctct gaccttggca    300
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RAW SEQUENCE LISTING DATE: 05/09/2003
PATENT APPLICATION: US/09/634,287C TIME: 09:47:36

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05092003\I634287C.raw

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173 <211> LENGTH: 837
174 <212> TYPE: PRT
175 <213> ORGANISM: Homo sapiens

RAW SEQUENCE LISTING DATE: 05/09/2003
PATENT APPLICATION: US/09/634,287C TIME: 09:47:36

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05092003\I634287C.raw

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187 Trp Leu Val Trp Leu Leu Leu Leu Leu Leu Ala Ser Leu Leu Pro Ser
188 35 40 45
191 Ala Arg Leu Ala Ser Pro Leu Pro Arg Glu Glu Glu Ile Val Phe Pro
192 50 55 60
195 Glu Lys Leu Asn Gly Ser Val Leu Pro Gly Ser Gly Ala Pro Ala Arg
196 65 70 75 80
199 Leu Leu Cys Arg Leu Gln Ala Phe Gly Glu Thr Leu Leu Leu Glu Leu
200 85 90 95
203 Glu Gln Asp Ser Gly Val Gln Val Glu Gly Leu Thr Val Gln Tyr Leu
204 100 105 110
207 Gly Gln Ala Pro Glu Leu Leu Gly Gly Ala Glu Pro Gly Thr Tyr Leu
208 115 120 125
211 Thr Gly Thr Ile Asn Gly Asp Pro Glu Ser Val Ala Ser Leu His Trp
212 130 135 140
215 Asp Gly Gly Ala Leu Leu Gly Val Leu Gln Tyr Arg Gly Ala Glu Leu
216 145 150 155 160
219 His Leu Gln Pro Leu Glu Gly Gly Thr Pro Asn Ser Ala Gly Gly Pro
220 165 170 175
223 Gly Ala His Ile Leu Arg Arg Lys Ser Pro Ala Ser Gly Gln Gly Pro
224 180 185 190
227 Met Cys Asn Val Lys Ala Pro Leu Gly Ser Pro Ser Pro Arg Pro Arg
228 195 200 205
231 Arg Ala Lys Arg Phe Ala Ser Leu Ser Arg Phe Val Glu Thr Leu Val
232 210 215 220
235 Val Ala Asp Asp Lys Met Ala Ala Phe His Gly Ala Gly Leu Lys Arg
236 225 230 235 240
239 Tyr Leu Leu Thr Val Met Ala Ala Ala Ala Lys Ala Phe Lys His Pro
240 245 250 255
243 Ser Ile Arg Asn Pro Val Ser Leu Val Val Thr Arg Leu Val Ile Leu
244 260 265 270
247 Gly Ser Gly Glu Glu Gly Pro Gln Val Gly Pro Ser Ala Ala Gln Thr
248 275 280 285
251 Leu Arg Ser Phe Cys Ala Trp Gln Arg Gly Leu Asn Thr Pro Glu Asp
252 290 295 300
255 Ser Asp Pro Asp His Phe Asp Thr Ala Ile Leu Phe Thr Arg Gln Asp
256 305 310 315 320
259 Leu Cys Gly Val Ser Thr Cys Asp Thr Leu Gly Met Ala Asp Val Gly
260 325 330 335
263 Thr Val Cys Asp Pro Ala Arg Ser Cys Ala Ile Val Glu Asp Asp Gly
264 340 345 350
267 Leu Gln Ser Ala Phe Thr Ala Ala His Glu Leu Gly His Val Phe Asn
268 355 360 365
271 Met Leu His Asp Asn Ser Lys Pro Cys Ile Ser Leu Asn Gly Pro Leu
272 370 375 380

RAW SEQUENCE LISTING DATE: 05/09/2003
PATENT APPLICATION: US/09/634,287C TIME: 09:47:36

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05092003\I634287C.raw

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276 385                 390                 395                 400
279 Glu Glu Pro Trp Ser Pro Cys Ser Ala Arg Phe Ile Thr Asp Phe Leu
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284             420                 425                 430
287 His Leu Pro Val Thr Phe Pro Gly Lys Asp Tyr Asp Ala Asp Arg Gln
288         435                 440                 445
291 Cys Gln Leu Thr Phe Gly Pro Asp Ser Arg His Cys Pro Gln Leu Pro
292     450                 455                 460
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296 465                 470                 475                 480
299 Met Cys Gln Thr Lys His Ser Pro Trp Ala Asp Gly Thr Pro Cys Gly
300                 485                 490                 495
303 Pro Ala Gln Ala Cys Met Gly Gly Arg Cys Leu His Met Asp Gln Leu
304             500                 505                 510
307 Gln Asp Phe Asn Ile Pro Gln Ala Gly Gly Trp Gly Pro Trp Gly Pro
308         515                 520                 525
311 Trp Gly Asp Cys Ser Arg Thr Cys Gly Gly Gly Val Gln Phe Ser Ser
312     530                 535                 540
315 Arg Asp Cys Thr Arg Pro Val Pro Arg Asn Gly Gly Lys Tyr Cys Glu
316 545                 550                 555                 560
319 Gly Arg Arg Thr Arg Phe Arg Ser Cys Asn Thr Glu Asp Cys Pro Thr
320                 565                 570                 575
323 Gly Ser Ala Leu Thr Phe Arg Glu Glu Gln Cys Ala Ala Tyr Asn His
324             580                 585                 590
327 Arg Thr Asp Leu Phe Lys Ser Phe Pro Gly Pro Met Asp Trp Val Pro
328         595                 600                 605
331 Arg Tyr Thr Gly Val Ala Pro Gln Asp Gln Cys Lys Leu Thr Cys Gln
332     610                 615                 620
335 Ala Arg Ala Leu Gly Tyr Tyr Tyr Val Leu Glu Pro Arg Val Val Asp
336 625                 630                 635                 640
339 Gly Thr Pro Cys Ser Pro Asp Ser Ser Ser Val Cys Val Gln Gly Arg
340                 645                 650                 655
343 Cys Ile His Ala Gly Cys Asp Arg Ile Ile Gly Ser Lys Lys Lys Phe
344             660                 665                 670
347 Asp Lys Cys Met Val Cys Gly Gly Asp Gly Ser Gly Cys Ser Lys Gln
348         675                 680                 685
351 Ser Gly Ser Phe Arg Lys Phe Arg Tyr Gly Tyr Asn Asn Val Val Thr
352     690                 695                 700
355 Ile Pro Ala Gly Ala Thr His Ile Leu Val Arg Gln Gln Gly Asn Pro
356 705                 710                 715                 720
359 Gly His Arg Ser Ile Tyr Leu Ala Leu Lys Leu Pro Asp Gly Ser Tyr
360                 725                 730                 735
363 Ala Leu Asn Gly Glu Tyr Thr Leu Met Pro Ser Pro Thr Asp Val Val
364             740                 745                 750
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368         755                 760                 765
371 Glu Thr Leu Ser Gly His Gly Pro Leu Ala Gln Pro Leu Thr Leu Gln
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RAW SEQUENCE LISTING DATE: 05/09/2003
PATENT APPLICATION: US/09/634,287C TIME: 09:47:36

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05092003\I634287C.raw

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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 05/09/2003
PATENT APPLICATION: US/09/634,287C TIME: 09:47:37

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\05092003\I634287C.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:21; Xaa Pos. 12

1600

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

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  3 <110> APPLICANT: BRISTOL-MYERS SQUIBB COMPANY
  5 <120> TITLE OF INVENTION: AGGRECAN DEGRADING METALLO PROTEASES
  7 <130> FILE REFERENCE: DM6090 DIV
  9 <140> CURRENT APPLICATION NUMBER: 09/634,287C
 10 <141> CURRENT FILING DATE: 2000-08-09
 12 <150> PRIOR APPLICATION NUMBER: 60/053,850
 13 <151> PRIOR FILING DATE: 1997-07-25
 15 <150> PRIOR APPLICATION NUMBER: 60/055,836
 16 <151> PRIOR FILING DATE: 1997-08-15
 18 <150> PRIOR APPLICATION NUMBER: 60/062,169
 19 <151> PRIOR FILING DATE: 1997-10-16
 21 <160> NUMBER OF SEQ ID NOS: 48
 23 <170> SOFTWARE: PatentIn version 3.1
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Does Not Comply
Corrected Diskette Needed

ERRORED SEQUENCES

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E--> 392 <400> SEQUENCE: SEQ ID NO: 3
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delete

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397 <212> TYPE: PRT
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406 Met Ala Ala Phe His Gly Ala Gly Leu Lys
407             20                  25
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RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

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Output Set: N:\CRF4\05072003\I634287C.raw

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1 5 10 15
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RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

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513 ggccccgccg cgacacctgc ccaggataaa gccgggcagc ctccgactgc tgcagcagcc    240
515 gcccagcccc gccggcggca ggggggaggag gtgcaggagc gagccgagcc tcccggccac    300
517 ccgcaccccc tggcgcagcg gcgcaggagc aaggggctgg tgcagaacat cgaccaactc    360
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531 gaggccctgc cgccgcgcgc cagctgcgaa acccccgcgt ccacaccgga ggcccacgag    780
533 catgctccgg cgcacagcaa cccgagcgga cgcgcagcac tggcctcgca gctcttggac    840
535 cagtccgctc tctcgcccgc tgggggctca ggaccgcaga cgtggtggcg gcggcggcgc    900
537 cgctccatct cccgggcccg ccaggtggag ctgcttctgg tggctgacgc gtccatggcg    960
539 cggttgtatg gccggggcct gcagcattac ctgctgaccc tggcctccat cgccaatagg   1020
541 ctgtacagcc atgctagcat cgagaaccac atccgcctgg ccgtggtgaa ggtggtggtg   1080
543 ctaggcgaca aggacaagag cctggaagtg agcaagaacg ctgccaccac actcaagaac   1140
545 ttttgcaagt ggcagcacca acacaaccag ctgggagatg accatgagga gcactacgat   1200
547 gcagctatcc tgtttactcg ggaggattta tgtgggcatc attcatgtga caccctggga   1260
549 atggcagacg ttgggaccat atgttctcca gagcgcagct gtgctgtgat tgaagacgat   1320
551 ggcctccacg cagccttcac tgtggctcac gaaatcggac atttacttgg cctctcccat   1380
553 gacgattcca aattctgtga agagaccttt ggttccacag aagataagcg cttaatgtct   1440
555 tccatcctta ccagcattga tgcatctaag ccctggtcca aatgcacttc agccaccatc   1500
557 acagaattcc tggatgatgg ccatggtaac tgtttgctgg acctaccacg aaagcagatc   1560
559 ctgggccccg aagaactccc aggacagacc tacgatgcca cccagcagtg caacctgaca   1620
561 ttcgggcctg agtactccgt gtgtcccggc atggatgtct gtgctcgcct gtggtgtgct   1680
563 gtggtacgcc agggccagat ggtctgtctg accaagaagc tgcctgcggt ggaagggacg   1740
565 ccttgtggaa aggggagaat ctgcctgcag ggcaaatgtg tggacaaaac caagaaaaaa   1800
567 tattattcaa cgtcaagcca tggcaactgg ggatcttggg gatcctgggg ccagtgttct   1860
569 cgctcatgtg gaggaggagt gcagtttgcc tatcgtcact gtaataaccc tgctcccaga   1920
571 aacaacggac gctactgcac agggaagagg gccatctacc gctcctgcag tctcatgccc   1980
573 tgcccaccca atggtaaatc atttcgtcat gaacagtgtg aggccaaaaa tggctatcag   2040
575 tctgatgcaa aaggagtcaa aacttttgtg gaatgggttc ccaaatatgc aggtgtcctg   2100
577 ccagcggatg tgtgcaagct gacctgcaga gccaagggca ctggctacta tgtggtattt   2160
579 tctccaaagg tgaccgatgg cactgaatgt aggccgtaca gtaattccgt ctgcgtccgg   2220
581 gggaagtgtg tgagaactgg ctgtgacggc atcattggct caaagctgca gtatgacaag   2280
583 tgcggagtat gtggaggaga caactccagc tgtacaaaga ttgttggaac ctttaataag   2340
585 aaaagtaagg gttacactga cgtggtgagg attcctgaag gggcaaccca cataaaagtt   2400
587 cgacagttca aagccaaaga ccagactaga ttcactgcct atttagccct gaaaaagaaa   2460
589 aacggtgagt accttatcaa tggaaagtac atgatctcca cttcagagac tatcattgac   2520
591 atcaatggaa cagtcatgaa ctatagcggt tggagccaca gggatgactt cctgcatggc   2580
593 atgggctact ctgccacgaa ggaaattcta atagtgcaga ttcttgcaac agaccccact   2640
595 aaaccattag atgtccgtta tagctttttt gttcccaaga agtccactcc aaaagtaaac   2700
597 tctgtcacta gtcatggcag caataaagtg ggatcacaca cttcgcagcc gcagtgggtc   2760
599 acgggcccat ggctcgcctg ctctaggacc tgtgacacag gttggcacac cagaacggtg   2820
601 cagtgccagg atggaaaccg gaagttagca aaaggatgtc ctctctccca aaggccttct   2880
603 gcgtttaagc aatgcttgtt gaagaaatgt tagcctgtgg ttatgatctt atgcacaaag   2940
```

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

```
605 ataactggag gattcagcac cgatgcagtc gtggtgaaca ggaggtctac ctaacgcaca   3000
607 gaaagtcatg cttcagtgac attgtcaaca ggagtccaat tatgggcaga atctgctctc   3060
609 tgtgaccaaa agaggatgtg cactgcttca cgtgacagtg gtgaccttgc aatatagaaa   3120
611 aacttgggag ttattgaaca tcccctggga ttacaagaaa cactgatgaa tgttaaatca   3180
613 ggggacattt gaagatggca gaactgtctc ccccttgtca cctacctctg aatagaatgt   3240
615 ctttaatggt                                                         3250
618 <210> SEQ ID NO: 15
619 <211> LENGTH: 930
620 <212> TYPE: PRT
621 <213> ORGANISM: Homo sapiens
623 <400> SEQUENCE: 15
625 Met Leu Leu Gly Trp Ala Ser Leu Leu Leu Cys Ala Phe Arg Leu Pro
626 1               5                   10                  15
629 Leu Ala Ala Val Gly Pro Ala Ala Thr Pro Ala Gln Asp Lys Ala Gly
630             20                  25                  30
633 Gln Pro Pro Thr Ala Ala Ala Ala Ala Gln Pro Arg Arg Arg Gln Gly
634         35                  40                  45
637 Glu Glu Val Gln Glu Arg Ala Glu Pro Pro Gly His Pro His Pro Leu
638     50                  55                  60
641 Ala Gln Arg Arg Arg Ser Lys Gly Leu Val Gln Asn Ile Asp Gln Leu
642 65                  70                  75                  80
645 Tyr Ser Gly Gly Gly Lys Val Gly Tyr Leu Val Tyr Ala Gly Gly Arg
646                 85                  90                  95
649 Arg Phe Leu Leu Asp Leu Glu Arg Asp Gly Ser Val Gly Ile Ala Gly
650             100                 105                 110
653 Phe Val Pro Ala Gly Gly Gly Thr Ser Ala Pro Trp Arg His Arg Ser
654         115                 120                 125
657 His Cys Phe Tyr Arg Gly Thr Val Asp Ala Ser Pro Arg Ser Leu Ala
658     130                 135                 140
661 Val Phe Asp Leu Cys Gly Gly Leu Asp Gly Phe Phe Ala Val Lys His
662 145                 150                 155                 160
665 Ala Arg Tyr Thr Leu Lys Pro Leu Leu Arg Gly Pro Trp Ala Glu Glu
666                 165                 170                 175
669 Glu Lys Gly Arg Val Tyr Gly Asp Gly Ser Ala Arg Ile Leu His Val
670             180                 185                 190
673 Tyr Thr Arg Glu Gly Phe Ser Phe Glu Ala Leu Pro Pro Arg Ala Ser
674         195                 200                 205
677 Cys Glu Thr Pro Ala Ser Thr Pro Glu Ala His Glu His Ala Pro Ala
678     210                 215                 220
681 His Ser Asn Pro Ser Gly Arg Ala Ala Leu Ala Ser Gln Leu Leu Asp
682 225                 230                 235                 240
685 Gln Ser Ala Leu Ser Pro Ala Gly Gly Ser Gly Pro Gln Thr Trp Trp
686                 245                 250                 255
689 Arg Arg Arg Arg Arg Ser Ile Ser Arg Ala Arg Gln Val Glu Leu Leu
690             260                 265                 270
693 Leu Val Ala Asp Ala Ser Met Ala Arg Leu Tyr Gly Arg Gly Leu Gln
694         275                 280                 285
697 His Tyr Leu Leu Thr Leu Ala Ser Ile Ala Asn Arg Leu Tyr Ser His
698     290                 295                 300
```

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

```
701 Ala Ser Ile Glu Asn His Ile Arg Leu Ala Val Val Lys Val Val Val
702 305                 310                 315                 320
705 Leu Gly Asp Lys Asp Lys Ser Leu Glu Val Ser Lys Asn Ala Ala Thr
706                 325                 330                 335
709 Thr Leu Lys Asn Phe Cys Lys Trp Gln His Gln His Asn Gln Leu Gly
710             340                 345                 350
713 Asp Asp His Glu Glu His Tyr Asp Ala Ala Ile Leu Phe Thr Arg Glu
714         355                 360                 365
717 Asp Leu Cys Gly His His Ser Cys Asp Thr Leu Gly Met Ala Asp Val
718     370                 375                 380
721 Gly Thr Ile Cys Ser Pro Glu Arg Ser Cys Ala Val Ile Glu Asp Asp
722 385                 390                 395                 400
725 Gly Leu His Ala Ala Phe Thr Val Ala His Glu Ile Gly His Leu Leu
726                 405                 410                 415
729 Gly Leu Ser His Asp Asp Ser Lys Phe Cys Glu Glu Thr Phe Gly Ser
730             420                 425                 430
733 Thr Glu Asp Lys Arg Leu Met Ser Ser Ile Leu Thr Ser Ile Asp Ala
734         435                 440                 445
737 Ser Lys Pro Trp Ser Lys Cys Thr Ser Ala Thr Ile Thr Glu Phe Leu
738     450                 455                 460
741 Asp Asp Gly His Gly Asn Cys Leu Leu Asp Leu Pro Arg Lys Gln Ile
742 465                 470                 475                 480
745 Leu Gly Pro Glu Glu Leu Pro Gly Gln Thr Tyr Asp Ala Thr Gln Gln
746                 485                 490                 495
749 Cys Asn Leu Thr Phe Gly Pro Glu Tyr Ser Val Cys Pro Gly Met Asp
750             500                 505                 510
753 Val Cys Ala Arg Leu Trp Cys Ala Val Val Arg Gln Gly Gln Met Val
754         515                 520                 525
757 Cys Leu Thr Lys Lys Leu Pro Ala Val Glu Gly Thr Pro Cys Gly Lys
758     530                 535                 540
761 Gly Arg Ile Cys Leu Gln Gly Lys Cys Val Asp Lys Thr Lys Lys Lys
762 545                 550                 555                 560
765 Tyr Tyr Ser Thr Ser Ser His Gly Asn Trp Gly Ser Trp Gly Ser Trp
766                 565                 570                 575
769 Gly Gln Cys Ser Arg Ser Cys Gly Gly Gly Val Gln Phe Ala Tyr Arg
770             580                 585                 590
773 His Cys Asn Asn Pro Ala Pro Arg Asn Asn Gly Arg Tyr Cys Thr Gly
774         595                 600                 605
777 Lys Arg Ala Ile Tyr Arg Ser Cys Ser Leu Met Pro Cys Pro Pro Asn
778     610                 615                 620
781 Gly Lys Ser Phe Arg His Glu Gln Cys Glu Ala Lys Asn Gly Tyr Gln
782 625                 630                 635                 640
785 Ser Asp Ala Lys Gly Val Lys Thr Phe Val Glu Trp Val Pro Lys Tyr
786                 645                 650                 655
789 Ala Gly Val Leu Pro Ala Asp Val Cys Lys Leu Thr Cys Arg Ala Lys
790             660                 665                 670
793 Gly Thr Gly Tyr Tyr Val Val Phe Ser Pro Lys Val Thr Asp Gly Thr
794         675                 680                 685
797 Glu Cys Arg Pro Tyr Ser Asn Ser Val Cys Val Arg Gly Lys Cys Val
```

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

```
798     690                 695                 700
801 Arg Thr Gly Cys Asp Gly Ile Ile Gly Ser Lys Leu Gln Tyr Asp Lys
802 705                 710                 715                 720
805 Cys Gly Val Cys Gly Gly Asp Asn Ser Ser Cys Thr Lys Ile Val Gly
806                 725                 730                 735
809 Thr Phe Asn Lys Lys Ser Lys Gly Tyr Thr Asp Val Val Arg Ile Pro
810             740                 745                 750
813 Glu Gly Ala Thr His Ile Lys Val Arg Gln Phe Lys Ala Lys Asp Gln
814         755                 760                 765
817 Thr Arg Phe Thr Ala Tyr Leu Ala Leu Lys Lys Lys Asn Gly Glu Tyr
818     770                 775                 780
821 Leu Ile Asn Gly Lys Tyr Met Ile Ser Thr Ser Glu Thr Ile Ile Asp
822 785                 790                 795                 800
825 Ile Asn Gly Thr Val Met Asn Tyr Ser Gly Trp Ser His Arg Asp Asp
826                 805                 810                 815
829 Phe Leu His Gly Met Gly Tyr Ser Ala Thr Lys Glu Ile Leu Ile Val
830             820                 825                 830
833 Gln Ile Leu Ala Thr Asp Pro Thr Lys Pro Leu Asp Val Arg Tyr Ser
834         835                 840                 845
837 Phe Phe Val Pro Lys Lys Ser Thr Pro Lys Val Asn Ser Val Thr Ser
838     850                 855                 860
841 His Gly Ser Asn Lys Val Gly Ser His Thr Ser Gln Pro Gln Trp Val
842 865                 870                 875                 880
845 Thr Gly Pro Trp Leu Ala Cys Ser Arg Thr Cys Asp Thr Gly Trp His
846                 885                 890                 895
849 Thr Arg Thr Val Gln Cys Gln Asp Gly Asn Arg Lys Leu Ala Lys Gly
850             900                 905                 910
853 Cys Pro Leu Ser Gln Arg Pro Ser Ala Phe Lys Gln Cys Leu Leu Lys
854         915                 920                 925
857 Lys Cys
858     930
861 <210> SEQ ID NO: 16
862 <211> LENGTH: 42
863 <212> TYPE: PRT
864 <213> ORGANISM: Homo sapiens
866 <400> SEQUENCE: 16
868 Ser Ile Ser Arg Ala Arg Gln Val Glu Leu Leu Leu Val Ala Asp Ala
869 1               5                   10                  15
872 Ser Met Ala Arg Met Tyr Gly Arg Gly Leu Gln His Tyr Leu Leu Thr
873             20                  25                  30
876 Leu Ala Ser Ile Ala Asn Lys Leu Tyr Phe
877         35                  40
880 <210> SEQ ID NO: 17
881 <211> LENGTH: 23
882 <212> TYPE: DNA
883 <213> ORGANISM: Mus musculus
885 <400> SEQUENCE: 17
886 cggccacgac cctcaagaac ttt                                          23
889 <210> SEQ ID NO: 18
```

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

```
    890 <211> LENGTH: 25
    891 <212> TYPE: DNA
    892 <213> ORGANISM: Mus musculus
    894 <400> SEQUENCE: 18
    895 gcatggaggc catcatcttc aatca                                        25
    898 <210> SEQ ID NO: 19
    899 <211> LENGTH: 22
    900 <212> TYPE: DNA
    901 <213> ORGANISM: Homo sapiens
    903 <400> SEQUENCE: 19
    904 gggaggattt atgtgggcat ca                                           22
    907 <210> SEQ ID NO: 20
    908 <211> LENGTH: 23
    909 <212> TYPE: DNA
    910 <213> ORGANISM: Homo sapiens
    912 <400> SEQUENCE: 20
    913 gtgcatttgg accagggctt aga                                          23
    916 <210> SEQ ID NO: 21
    917 <211> LENGTH: 13
    918 <212> TYPE: PRT
    919 <213> ORGANISM: Artificial Sequence
    921 <220> FEATURE:
    922 <223> OTHER INFORMATION: Synthesized peptide
    924 <220> FEATURE:
    925 <221> NAME/KEY: MISC_FEATURE
    926 <222> LOCATION: (12)..(12)
    927 <223> OTHER INFORMATION: Acp
    930 <220> FEATURE:
    931 <221> NAME/KEY: MOD_RES
    932 <222> LOCATION: (12)..(12)
    933 <223> OTHER INFORMATION: Acp
    936 <400> SEQUENCE: 21
W--> 938 Ser Ile Ser Arg Ala Arg Gln Val Glu Leu Leu Xaa Cys
    939 1               5                   10
    942 <210> SEQ ID NO: 22
    943 <211> LENGTH: 14
    944 <212> TYPE: PRT
    945 <213> ORGANISM: homo sapiens
    947 <400> SEQUENCE: 22
    949 Asn Ile Thr Glu Gly Glu Ala Arg Gly Ser Val Ile Leu Thr
    950 1               5                   10
    953 <210> SEQ ID NO: 23
    954 <211> LENGTH: 14
    955 <212> TYPE: PRT
    956 <213> ORGANISM: bovine
    958 <400> SEQUENCE: 23
    960 Asn Ile Thr Glu Gly Glu Ala Arg Gly Ser Val Ile Leu Thr
    961 1               5                   10
    964 <210> SEQ ID NO: 24
```

delete - duplicated

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

965 <211> LENGTH: 14
966 <212> TYPE: PRT
967 <213> ORGANISM: rat
969 <400> SEQUENCE: 24
971 Asn Ile Thr Glu Gly Glu Ala Arg Gly Asn Val Ile Leu Thr
972 1 5 10
975 <210> SEQ ID NO: 25
976 <211> LENGTH: 14
977 <212> TYPE: PRT
978 <213> ORGANISM: mouse
980 <400> SEQUENCE: 25
982 Asn Val Thr Glu Gly Glu Ala Leu Gly Ser Val Ile Leu Thr
983 1 5 10
986 <210> SEQ ID NO: 26
987 <211> LENGTH: 14
988 <212> TYPE: PRT
989 <213> ORGANISM: pig
991 <400> SEQUENCE: 26
993 Asn Ile Thr Glu Gly Glu Ala Arg Gly Thr Val Ile Leu Thr
994 1 5 10
997 <210> SEQ ID NO: 27
998 <211> LENGTH: 14
999 <212> TYPE: PRT
1000 <213> ORGANISM: sheep
1002 <400> SEQUENCE: 27
1004 Asn Ile Thr Glu Gly Glu Ala Arg Gly Asn Val Ile Leu Thr
1005 1 5 10
1008 <210> SEQ ID NO: 28
1009 <211> LENGTH: 11
1010 <212> TYPE: PRT
1011 <213> ORGANISM: chicken
1013 <400> SEQUENCE: 28
1015 Asn Val Thr Glu Glu Glu Ala Arg Gly Ser Ile
1016 1 5 10
1019 <210> SEQ ID NO: 29
1020 <211> LENGTH: 14
1021 <212> TYPE: PRT
1022 <213> ORGANISM: horse
1024 <400> SEQUENCE: 29
1026 Asn Ile Thr Glu Gly Glu Ala Arg Gly Asn Val Ile Leu Thr
1027 1 5 10
1030 <210> SEQ ID NO: 30
1031 <211> LENGTH: 16
1032 <212> TYPE: PRT
1033 <213> ORGANISM: homo sapiens
1035 <400> SEQUENCE: 30
1037 Ala Ser Thr Ala Ser Glu Leu Glu Gly Arg Gly Thr Ile Gly Ile Ser
1038 1 5 10 15
1041 <210> SEQ ID NO: 31

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

1042 <211> LENGTH: 16
1043 <212> TYPE: PRT
1044 <213> ORGANISM: bovine
1046 <400> SEQUENCE: 31
1048 Ala Thr Thr Ala Gly Glu Leu Glu Gly Arg Gly Thr Ile Asp Ile Ser
1049 1 5 10 15
1052 <210> SEQ ID NO: 32
1053 <211> LENGTH: 16
1054 <212> TYPE: PRT
1055 <213> ORGANISM: mouse
1057 <400> SEQUENCE: 32
1059 Ala Thr Thr Ser Ser Glu Leu Glu Gly Arg Gly Thr Ile Gly Ile Ser
1060 1 5 10 15
1063 <210> SEQ ID NO: 33
1064 <211> LENGTH: 16
1065 <212> TYPE: PRT
1066 <213> ORGANISM: rat
1068 <400> SEQUENCE: 33
1070 Ala Thr Thr Ala Ser Glu Leu Glu Gly Arg Gly Thr Ile Ser Val Ser
1071 1 5 10 15
1074 <210> SEQ ID NO: 34
1075 <211> LENGTH: 16
1076 <212> TYPE: PRT
1077 <213> ORGANISM: homo sapiens
1079 <400> SEQUENCE: 34
1081 Pro Thr Thr Phe Lys Glu Glu Glu Gly Leu Gly Ser Val Glu Leu Ser
1082 1 5 10 15
1085 <210> SEQ ID NO: 35
1086 <211> LENGTH: 16
1087 <212> TYPE: PRT
1088 <213> ORGANISM: bovine
1090 <400> SEQUENCE: 35
1092 Pro Thr Thr Phe Lys Glu Glu Glu Gly Leu Gly Ser Val Glu Leu Ser
1093 1 5 10 15
1096 <210> SEQ ID NO: 36
1097 <211> LENGTH: 16
1098 <212> TYPE: PRT
1099 <213> ORGANISM: rat
1101 <400> SEQUENCE: 36
1103 Pro Thr Thr Phe Arg Glu Glu Glu Gly Leu Gly Ser Val Glu Leu Ser
1104 1 5 10 15
1107 <210> SEQ ID NO: 37
1108 <211> LENGTH: 16
1109 <212> TYPE: PRT
1110 <213> ORGANISM: mouse
1112 <400> SEQUENCE: 37
1114 Pro Thr Thr Phe Arg Glu Glu Glu Gly Leu Gly Ser Val Glu Leu Ser
1115 1 5 10 15
1118 <210> SEQ ID NO: 38

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: US/09/634,287C TIME: 13:34:19

Input Set : A:\DM6909.ST25.txt
Output Set: N:\CRF4\05072003\I634287C.raw

```
1119 <211> LENGTH: 16
1120 <212> TYPE: PRT
1121 <213> ORGANISM: homo sapiens
1123 <400> SEQUENCE: 38
1125 Thr Gln Ala Pro Thr Ala Gln Glu Ala Gly Glu Gly Pro Ser Gly Ile
1126 1               5                   10                  15
1129 <210> SEQ ID NO: 39
1130 <211> LENGTH: 16
1131 <212> TYPE: PRT
1132 <213> ORGANISM: bovine
1134 <400> SEQUENCE: 39
1136 Thr Gln Ala Pro Thr Ala Gln Glu Ala Gly Glu Gly Pro Ser Gly Ile
1137 1               5                   10                  15
1140 <210> SEQ ID NO: 40
1141 <211> LENGTH: 16
1142 <212> TYPE: PRT
1143 <213> ORGANISM: rat
1145 <400> SEQUENCE: 40
1147 Thr Leu Ala Pro Thr Ala Gln Glu Ala Gly Glu Gly Pro Ser Ser Ile
1148 1               5                   10                  15
1151 <210> SEQ ID NO: 41
1152 <211> LENGTH: 16
1153 <212> TYPE: PRT
1154 <213> ORGANISM: mouse
1156 <400> SEQUENCE: 41
1158 Thr Gln Ala Pro Thr Ala Gln Glu Ala Gly Glu Gly Pro Ser Gly Ile
1159 1               5                   10                  15
1162 <210> SEQ ID NO: 42
1163 <211> LENGTH: 16
1164 <212> TYPE: PRT
1165 <213> ORGANISM: chicken
1167 <400> SEQUENCE: 42
1169 Thr Gln Thr Ser Val Ala Gln Glu Val Gly Glu Gly Pro Ser Gly Met
1170 1               5                   10                  15
1173 <210> SEQ ID NO: 43
1174 <211> LENGTH: 17
1175 <212> TYPE: PRT
1176 <213> ORGANISM: homo sapiens
1178 <400> SEQUENCE: 43
1180 Thr Glu Pro Thr Ile Ser Gln Glu Leu Leu Gly Gln Arg Pro Pro Val
1181 1               5                   10                  15
1184 Thr
1188 <210> SEQ ID NO: 44
1189 <211> LENGTH: 16
1190 <212> TYPE: PRT
1191 <213> ORGANISM: bovine
1193 <400> SEQUENCE: 44
1195 Thr Glu Pro Thr Val Ser Gln Glu Leu Gly Gln Arg Pro Pro Val Thr
1196 1               5                   10                  15
```

RAW SEQUENCE LISTING DATE: 05/07/2003
PATENT APPLICATION: **US/09/634,287C** TIME: 13:34:19

Input Set : **A:\DM6909.ST25.txt**
Output Set: **N:\CRF4\05072003\I634287C.raw**

1199 <210> SEQ ID NO: 45
1200 <211> LENGTH: 16
1201 <212> TYPE: PRT
1202 <213> ORGANISM: rat
1204 <400> SEQUENCE: 45
1206 Thr Glu Pro Thr Val Ser Gln Glu Leu Gly His Gly Pro Ser Met Thr
1207 1 5 10 15
1210 <210> SEQ ID NO: 46
1211 <211> LENGTH: 16
1212 <212> TYPE: PRT
1213 <213> ORGANISM: mouse
1215 <400> SEQUENCE: 46
1217 Thr Glu Pro Thr Val Ser Gln Glu Leu Gly His Gly Pro Ser Met Thr
1218 1 5 10 15
1221 <210> SEQ ID NO: 47
1222 <211> LENGTH: 16
1223 <212> TYPE: PRT
1224 <213> ORGANISM: chicken
1226 <400> SEQUENCE: 47
1228 Thr Arg Pro Thr Val Ser Gln Glu Leu Gly Gly Glu Thr Ala Val Thr
1229 1 5 10 15
1232 <210> SEQ ID NO: 48
1233 <211> LENGTH: 16
1234 <212> TYPE: PRT
1235 <213> ORGANISM: dog
1237 <400> SEQUENCE: 48
1239 Thr Glu Pro Thr Val Ser Gln Glu Leu Ala Gln Arg Pro Pro Val Thr
1240 1 5 10 15

VERIFICATION SUMMARY DATE: 05/07/2003
PATENT APPLICATION: **US/09/634,287C** TIME: 13:34:20

Input Set : **A:\DM6909.ST25.txt**
Output Set: **N:\CRF4\05072003\I634287C.raw**

L:391 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQ ID NO
L:392 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:0 differs:2
L:392 M:283 W: Missing Blank Line separator, <400> field identifier
L:393 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (0) SEQUENCE:
L:938 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0